IN THE SPECIFICATION:

Please amend the carryover paragraph on pages 10 and 11 as follows:

With reference to FIG. 1, a first embodiment of a sample separation apparatus 10 of the present invention is depicted. Sample separation apparatus 10 includes a substrate 12 and capillary columns 14 formed in the substrate. Capillary columns 14 each include a matrix 16 and a plurality of pores 18 formed through the matrix. Pores 18 permit gases and liquids to flow along the distance of capillary columns 14. Capillary columns 14 may also include one or more reaction regions 20 along the longitudinal extent thereof. Preferably, ~~each of~~ the reaction regions 20 along each capillary column 14 are discrete from one another. Sample separation apparatus 10 may also include one or more detectors 22 disposed proximate each capillary column 14.

Please amend the carryover paragraph on pages 18 and 19 as follows:

With reference to FIG. 8, as another alternative, capillary columns 214 that include hemispherical grain silicon 216 on the surfaces 215 thereof may be formed in selected regions of a substrate 212 by known techniques. First, an elongate trench 213, which defines the path of the capillary column, is defined in a substrate by known patterning processes, such as mask and etch techniques. The area of the surfaces of trench 213 may then be increased by known methods, such as by forming hemispherical grain silicon ~~215~~ 216 thereon. Exemplary methods of forming hemispherical grain silicon that may be employed to fabricate capillary columns 214 include those disclosed in United States Patent ~~5,407,435~~ 5,407,534, which issued to Randhir P.S. Thakur on April 18, 1995; United States Patent 5,623,243, which issued to Hirohito Watanabe et al. on April 22, 1997; United States Patent 5,634,974, which issued to Ronald A. Weimer et al. on June 3, 1997; United States Patent 5,721,171, which issued to Er-Xuan Ping et al. on February 24, 1998; and United States Patent 5,726,085, which issued to Darius Lammont Crenshaw et al. on March 10, 1998, the disclosures of each of which are hereby incorporated by reference in their entirety. In general, a film of amorphous silicon is formed in trench 213. Impurities are then seeded into the amorphous silicon. Then, the material is annealed to cause nucleation sites to grow at the seeding sites, to thereby form the rough textured hemispherical grain silicon 216. A solid phase 218, such as a native oxide layer, may then be grown on the

surface of the hemispherical grain silicon 216. Finally, the entire structure 210 may be enclosed by a cover layer 220 or a suitable package.